at Leipzig, and of the subsequent discussion. He then marks off the problems of voice-training, medicine, historical criticism and aesthetics from the purely theoretical problem which involves physics, physiology and experimental psychology. Next he turns to the facts of observation; and he decides that both on the side of audition and on that of movement and carriage Rutz has made out a very good case; a song rendered in the 'right' type 'sounds better,' there is something alike in all renditions of the same type, the type is auditorily recognisable. the designative terms used by Rutz are well chosen, movements and changes of posture can be seen in others and felt in oneself. What, now, of the scientific setting of these facts? As regards audition, we are in presence of changes of 'tint' in the wider Helmholtzian sense, or (in the author's terminology) of a 'complex-quality.' As regards movement and posture, we have to remember the facts of sensory co-excitation, and of motor reflexes and concomitant movements; the larynx is not a musical instrument inserted into an indifferent body, but has extraordinarily varied functional and anatomical connections. The adjustments of the trunk to which Rutz has called attention are involuntary concomitant movements, not separately perceived; they may be classed psychologically as a group of expressive movements; by their effect for sensation they enter into that particular 'complex-quality' which is known as feeling.

The Social Direction of Human Evolution: an Outline of the Science of Eugenics. By W. E. KELLICOTT. New York, D. Appleton & Co., 1911. pp. xii., 249.

This little volume, based on three lectures delivered in Oberlin College in 1910, is, as the subtitle indicates, an introduction to the study of eugenics. Ch. I. discusses the sources and aims of the new science, with quotation from Galton, Pearson and others. Ch. II. reviews the biological foundations of eugenics, with elementary discussion of fluctuation and variation, Mendel's Law and the statistical phenomenon of regression. The author rightly insists that, while "millions of dollars and an incalculable amount of time are spent annually" upon endeavors to raise individuals from a lower group up to or toward the average, the benefit to society would be immeasurably greater "if the same amount of energy and money were spent in moving individuals from the middle classes on up toward the higher." That there is a positive relation between order of birth and intelligence (p. 126) seems to be settled by the recent work of Cattell (*Psych. Bulletin*, Feb. 15, 1913, p. 54: "the first-born child has the best chance to become a scientific man"). Ch. III. treats of human heredity and the eugenic programme. Many human traits are known to Mendelise, but "little can be said regarding Mendelian heredity of mental traits because the psychologist has not yet told us how to analyse even the common and simpler psychic characters into their fundamental units." A number of sample family-histories are here charted; Goddard's Kallikak family furnishes a welcome addition. As to the programme of eugenics, it consists (1) in the "extensive collection of exact data," (2) in research into differential fertility, human variability, effects of nurture, and so on, (3) in immediate practice—positive, as sterilisation, and negative, as opposition to celibacy and warfare, and (4) in "the spread of the facts, far and wide, through all classes of society."